

IN THE CLAIMS:

1. (Original) Method of providing a dedicated channel (DCH) for transport on a downlink dedicated physical channel (DPCH) comprising a downlink dedicated physical data channel (DPDCH) and a downlink dedicated physical control channel (DPCCH), comprising the steps of:

receiving digital user data bits (12) for transport on the DPDCH,

receiving first digital control bits (14) related to the DPDCH for transport on the DPCCH,

receiving second digital control bits (18) related to a high speed downlink packet access (HSDPA) common channel (HS-DSCH), and

multiplexing the digital user data bits, the first digital control bits and the second digital control bits for transport on the downlink DPCH.

2. (Original) The method of claim 1, wherein the step of multiplexing comprises the step of multiplexing the second digital control bits into one or more slots of a frame of the downlink DPCH.

3. (Original) The method of claim 2, wherein the step of multiplexing comprises the step of multiplexing the second digital control bits into the one or more slots of a frame of the downlink DPCH along with selected first digital control bits.

4. (Original) The method of claim 2, wherein the one or more slots of a frame of the downlink DPCH used for the second digital control bits are fixed in a same position within repetitive frames.

5. (Original) The method of claim 2, wherein the one or more slots of a frame of the downlink DPCH used for the second digital control bits are variable in number within repetitive frames.

6. (Original) The method of claim 5, wherein the one or more slots of a frame of the downlink DPCH used for the second digital control bits are variable in position within the repetitive frames.

7. (Currently Amended) Apparatus of providing a dedicated channel (DCH) for transport on a downlink dedicated physical channel (DPCH) comprising a downlink dedicated physical data channel (DPDCH) and a downlink dedicated physical control channel (DPCCH), comprising ~~the steps of~~:

means (13) for providing digital user data bits (12) for transport on the DPDCH,

means (15) for providing first digital control bits (14) related to the DPDCH for transport on the DPCCH,

means (19) for providing second digital control bits (18) related to a high speed downlink packet access (HSDPA) common channel (HS-DSCH), and

means (20) for multiplexing the digital user data bits (12), the first digital control bits (14) and the second digital control bits (18) for transport as a modified downlink DPCH.

8. (Currently Amended) The apparatus of claim 7, wherein the ~~step of means for multiplexing comprises the step of~~ means for multiplexing the second digital control bits (18) into one or more slots of a frame of the downlink DPCH.

9. (Original) The apparatus of claim 7, wherein the means for multiplexing multiplexes the second digital control bits (18) into a slot of a frame of the downlink DPCH along with selected first digital control bits (14).

10. (Original) The apparatus of claim 7, wherein the means for multiplexing multiplexes the digital user data bits (12) into a slot of a frame of the downlink DPCH along with the second digital control bits (18).

11. (Original) The apparatus of claim 8, wherein the one or more slots of a frame of the downlink DPCH used for the second digital control bits are variable in number within repetitive frames.

12. (Original) The apparatus of claim 11, wherein the one or more slots of a frame of the downlink DPCH used for the second digital control bits are variable in position within the repetitive frames.

13. (Original) The apparatus of claim 8, wherein the one or more slots of a frame of the downlink DPCH used for the second digital control bits are variable in position within repetitive frames.

14. (Original) The apparatus of claim 8, wherein the one or more slots of a frame of the downlink DPCH used for the second digital control bits are fixed in a same position within repetitive frames.

15. (New) Method of providing a dedicated channel for transport on a dedicated physical channel comprising a dedicated physical data channel and a dedicated physical control channel, comprising the steps of:

receiving digital user data bits for transport on the dedicated physical data channel,

receiving first digital control bits related to the dedicated physical data channel for transport on the dedicated physical control channel,

receiving second digital control bits related to a high speed packet access common channel, and

multiplexing the digital user data bits, the first digital control bits and the second digital control bits for transport on the dedicated physical channel.

16. (New) The method of claim 15, wherein the step of multiplexing comprises the step of multiplexing the second digital control bits into one or more slots of a frame of the dedicated physical channel.

17. (New) The method of claim 16, wherein the step of multiplexing comprises the step of multiplexing the second digital control bits into one or more slots of a frame of the dedicated physical channel along with selected first digital control bits.

18. (New) The method of claim 16, wherein one or more slots of a frame of the dedicated physical channel used for the second digital control bits are fixed in a same position within repetitive frames.

19. (New) The method of claim 16, wherein one or more slots of a frame of the dedicated physical channel used for the second digital control bits are variable in number within repetitive frames.

20. (New) The method of claim 19, wherein the one or more slots of a frame of the dedicated physical channel used for the second digital control bits are variable in position within the repetitive frames.

21. (New) Apparatus for providing a dedicated channel for transport on a dedicated physical channel and a dedicated physical control channel, comprising:

means for providing digital user data bits for transport on the dedicated physical data channel;

means for providing first digital control bits related to the dedicated physical data channel for transport on the dedicated physical control channel;

means for providing second digital control bits related to a high speed packet access common channel; and

means for multiplexing the digital user data bits, the first digital control bits and the second digital control bits for transport as a modified dedicated physical channel.

22. (New) The apparatus of claim 21, wherein the means for multiplexing comprises means for multiplexing the second digital control bits into one or more slots of a frame of the downlink dedicated physical channel.

23. (New) The apparatus of claim 21, wherein the means for multiplexing multiplexes the second digital control bits into a slot of a frame of the dedicated physical channel along with selected first digital control bits.

24. (New) The apparatus of claim 21, wherein the means for multiplexing multiplexes the digital user data bits into a slot of a frame of the dedicated physical channel along with the second digital control bits.

25. (New) The apparatus of claim 22, wherein the one or more slots of a frame of the dedicated physical channel used for the second digital control bits are variable in number within repetitive frames.

26. (New) The apparatus of claim 25, wherein the one or more slots of a frame of the dedicated physical channel used for the second digital control bits are variable in position within the repetitive frames.

27. (New) The apparatus of claim 22, wherein the one or more slots of a frame of the dedicated physical channel used for the second digital control bits are variable in position within repetitive frames.

28. (New) The apparatus of claim 22, wherein the one or more slots of a frame of the dedicated physical channel used for the second digital control bits are fixed in a same position within repetitive frames.